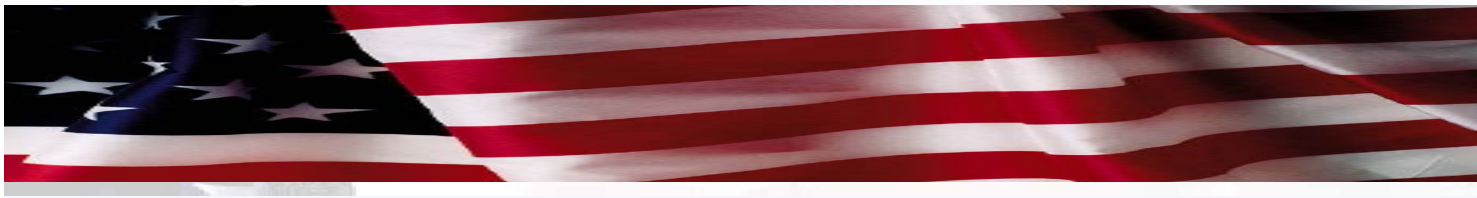# North Dakota State Government:

The Next Generation

"The U.S. government has no more important mission than protecting the homeland from future terrorist attacks. Yet the country has never had a comprehensive and shared vision of how best to achieve this goal."

--President Bush, The National Strategy for Homeland Security

VA Enterprise Architecture	DATA *What*	FUNCTION *How*	NETWORK *Where*	PEOPLE *Who*	TIME *When*	MOTIVATION *Why*	Based on work by John A. Zachman
SCOPE (CONTEXTUAL) *Planner*	Things Important to the Business Entity = Class of Business Thing	Processes Performed Function = Class of Business Process	Business locations Node = Major Business Locations	Important Organizations People = Major Organizations	Events Significant to the Business Time = Major Business Event	Business Goals and Strategy Ends/Means = Major Business Goals	**SCOPE (CONTEXTUAL)** *Planner*
ENTERPRISE MODEL (CONCEPTUAL) *Owner*	Semantic Model Ent = Business Entity Rel = Business Relationship	Business Process Model Proc = Business Process I/O = Business Resources	Business Logistics System Node = Business Location Link = Business Linkage	Work Flow Model People = Organization Unit Work = Work Product	Master Schedule Time = Business Event Cycle = Business Cycle	Business Plan End = Business Objective Means = Business Strategy	**ENTERPRISE MODEL (CONCEPTUAL)** *Owner*
SYSTEM MODEL (LOGICAL) *Designer*	Logical Data Model Ent = Data Entity Rel = Data Relationship	Application Architecture Proc = Application Function I/O = User Views	Distributed System Architecture Node = IS Function Link = Line Characteristics	Human Interface Architecture People = Role Work = Deliverable	Processing Structure Time = System Event Cycle = Processing Cycle	Business Rule Model End = Structural Assertion Means = Action Assertion	**SYSTEM MODEL (LOGICAL)** *Designer*
TECHNOLOGY MODEL (PHYSICAL) *Builder*	Physical Data Model Ent = Segment/Table Rel = Pointer/Key	System Design Proc = Computer Function I/O = Data Elements/Sets	Technology Architecture Node = Hardware/Software Link = Line Specifications	Presentation Architecture People = User Work = Screen Format	Control Structure Time = Execute Cycle = Component Cycle	Rule Design End = Condition Means = Action	**TECHNOLOGY MODEL (PHYSICAL)** *Builder*
DETAILED REPRESENTATIONS (OUT-OF-CONTEXT) *Su...*	Data Definition	Program	Network Architecture	Security Architecture	Timing Definition	Rule Design	**DETAILED REPRESENTATIONS (OUT-OF-CONTEXT)** *-Contractor*
FU... EN...							**...NCTIONING ...NTERPRISE**

The New and Improved Leg Bone

…And the Evolution Continues…

JULY 2002
National Strategy
For
Homeland Security
Issued

7/30/2002
Governor Hoeven's
Continuum of Government (COG)
Directive
Issued

8/7/2002
Risk Management
Begins COG
Process Meetings

11/01/02
Identify COG Team Members
and
Essential Functions

12/20/2002
State Entity
COG Plans
Due
(MS Word Format)

FEBRUARY 2003
National Strategy
For
Securing Cyberspace
Issued

2/27/03
Software System
RFP

MARCH 2003
Statewide Template
Initiative
Issued

3/31/03
Strohl Systems
Awarded
Contract

4/23-24
Software
Training
in PA

5/15/03
COG Team
Approved
Vision
and
Project Pilot
Team

7/1/2002

1/1/2003

6/4/2003

Vision Statement

In support of the National Strategy for Homeland Security, the state of North Dakota, through its *emergency management infrastructure*, will continually work to develop and implement an ever-evolving, comprehensive, secure and compatible system that empowers all levels of state, local, and tribal entities along with entities with key private assets and critical infrastructure to prepare, respond, mitigate, and recover from all manner of natural and technological emergencies and disasters.

To ensure continual evolution of the system, team members, partners, and stakeholders must internalize a progressive, open-minded approach that fosters creativity and seeks to draw on new and innovative concepts and technologies to further leverage the strengths of the existing system.

Project Pilot Team

To ensure the new planning system can be implemented as envisioned, the State COG Team directed a Project Pilot Team be established to provide guidance across a wide spectrum of issues.

The Project Pilot Team will also be the first group of entities to receive training and to implement the LDRPS for their Continuity of Operations Plans. The results of this limited, highly controlled implementation will aid in the refinement of the system to ensure a highly successful statewide deployment in the future.

What's In a Plan?

Operational

Administrative

Public Safety / (Homeland)Security

Statutory / Legal

STRUCTURE

COOP / COG

Political

Financial / Accounting
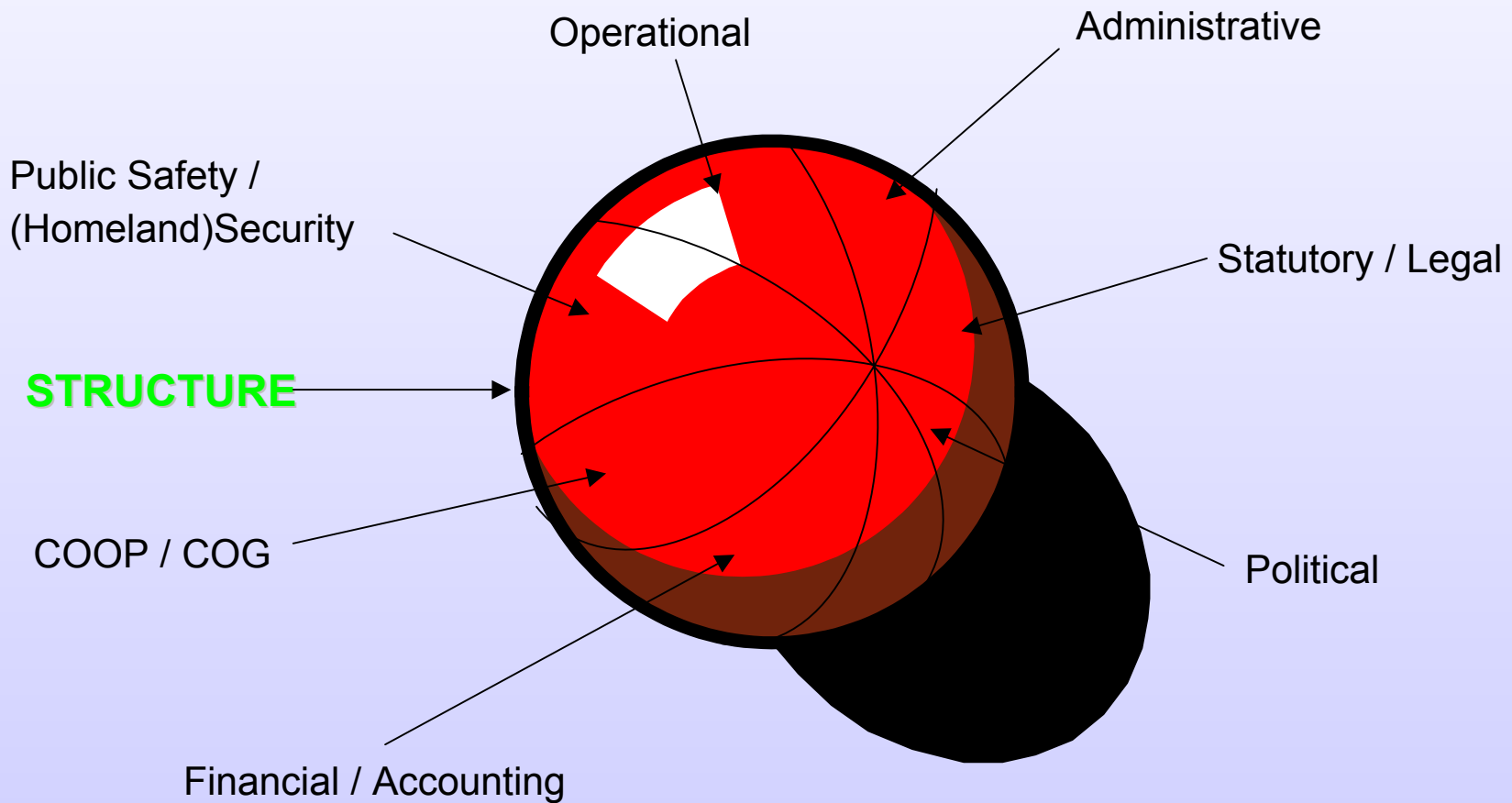
Project Pilot Team

Office of Management and Budget

Risk Management (COG)

Workforce Safety and Insurance

Attorney General

National Guard (Office of the Adjutant General)

Division of Emergency Management (COG)

NDSU, UND (NDUS)

Highway Patrol (COG)

Department of Transportation

Department of Health (COG)

State Water Commission

Department of Human Services

State Radio Communications

Bank of North Dakota

Information Technology Department (COG)

Rationale

Large and Small Agencies

Financial Expertise

Legal & Security Acumen

Complex Organization

Infrastructure Concerns

Personnel Concerns

Public Concerns

Private Concerns

Information and Technology

Unique Missions, Equipment, Terms

Elected and Appointed

Creating the System and Plan Template

- Entities Inventory Current Plans & Formalize Operations (Business Impact Analysis)

- System Design

  - The Bookcase : Plan Structure / Hierarchy

  - The Lexicon: Common Terms

  - Security and Data Administration

  - Customize Input Screens, Plan Assistant, User Manual

- Training, Exercises and Evaluation

- Change Management
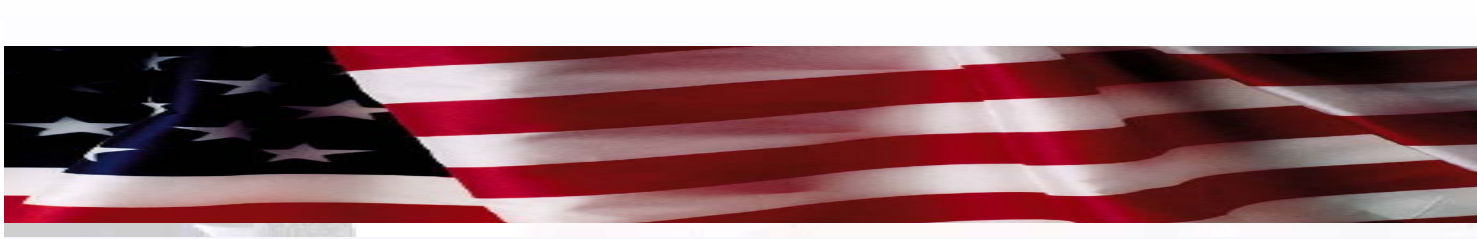
What Will This Create?

Mismatched

Parts…

Thrown

Together…

Abby Normal

Is this Big Brother?

Ω   **Data Administration Planning**

Ω   **Security Planning**

Ω   **Usable System**
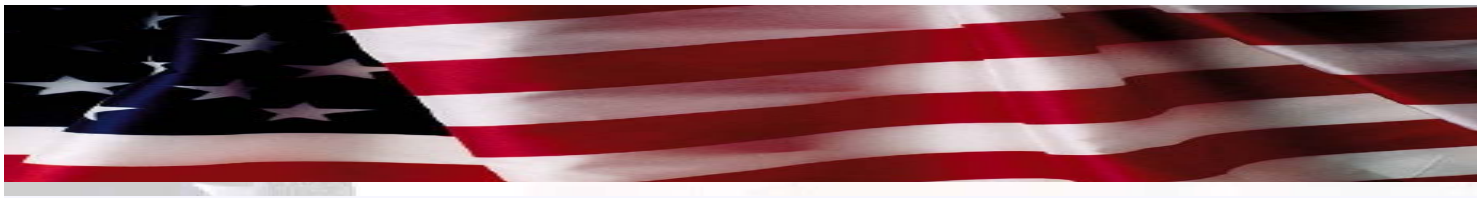
"Recognize that our enemy is networked and can only be defeated by a networked system—therefore, homeland defense must resemble networked PCs rather than a mainframe computer."

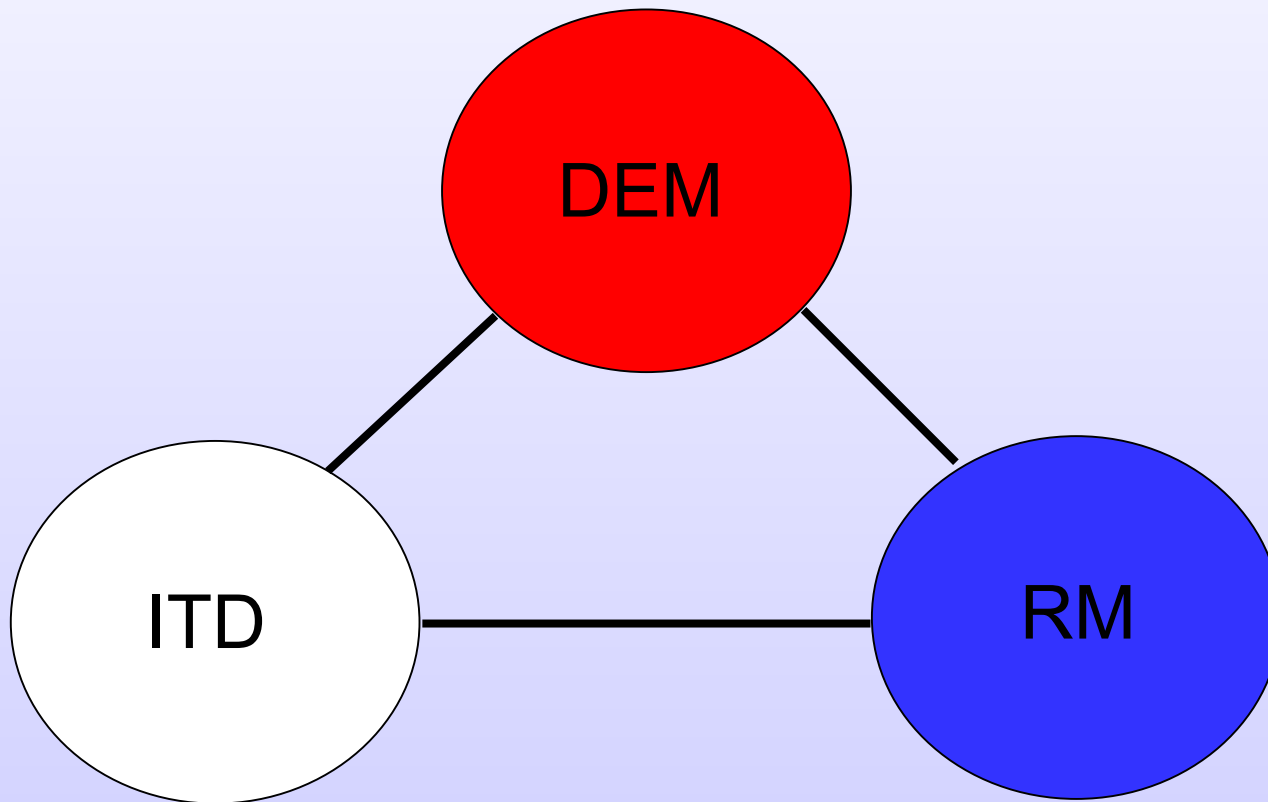*--President Bush, Statewide Template Initiative*

The Functional Network

OFFICE OF THE GOVERNOR

OFFICE OF THE ADJUTANT GENERAL (DEM)

TRIBES

COUNTIES & CITIES

ITD

RISK MGMT

PRIVATE CRITICAL INFRASTRUCTURE

Other State Entities

HIGHWAY PATROL
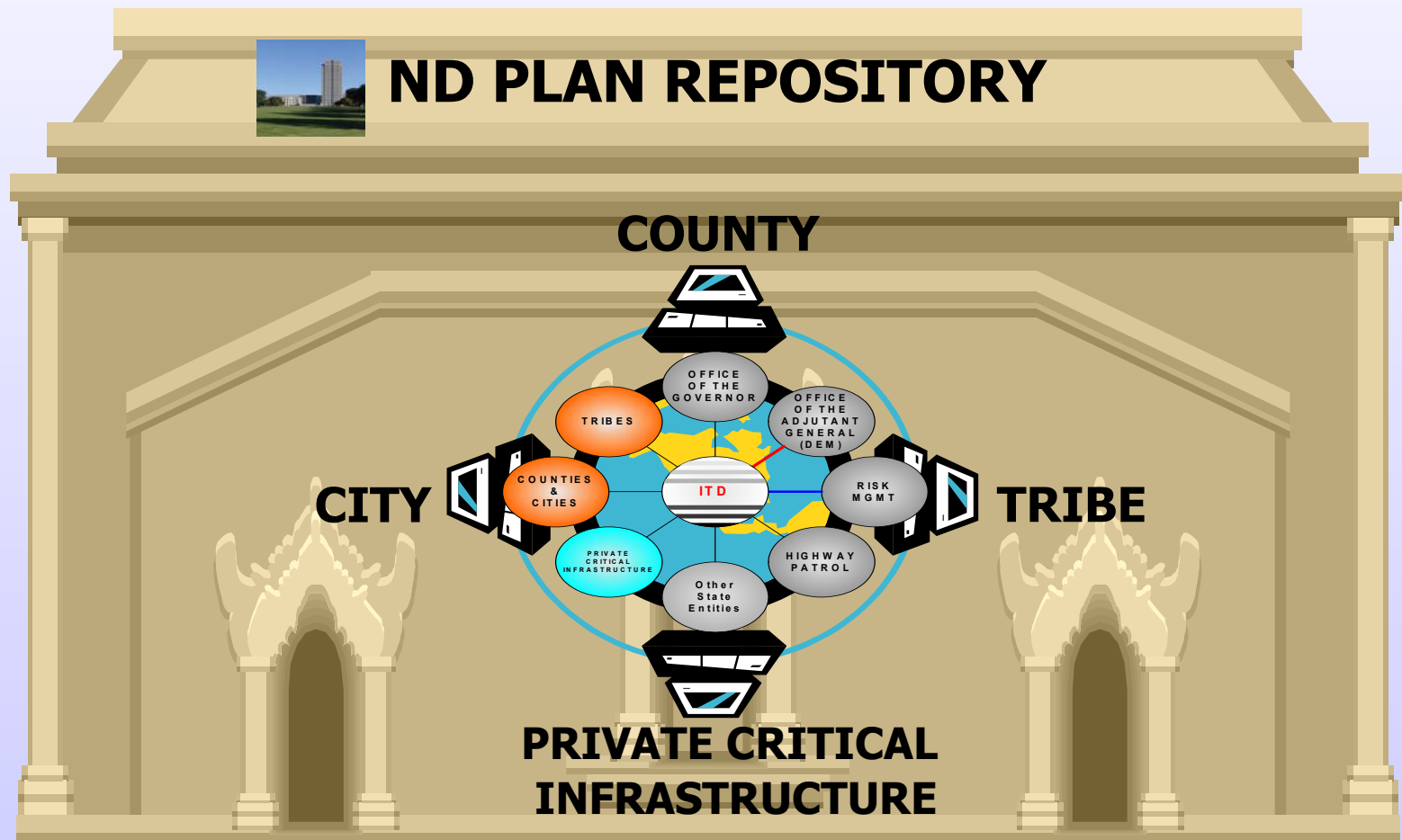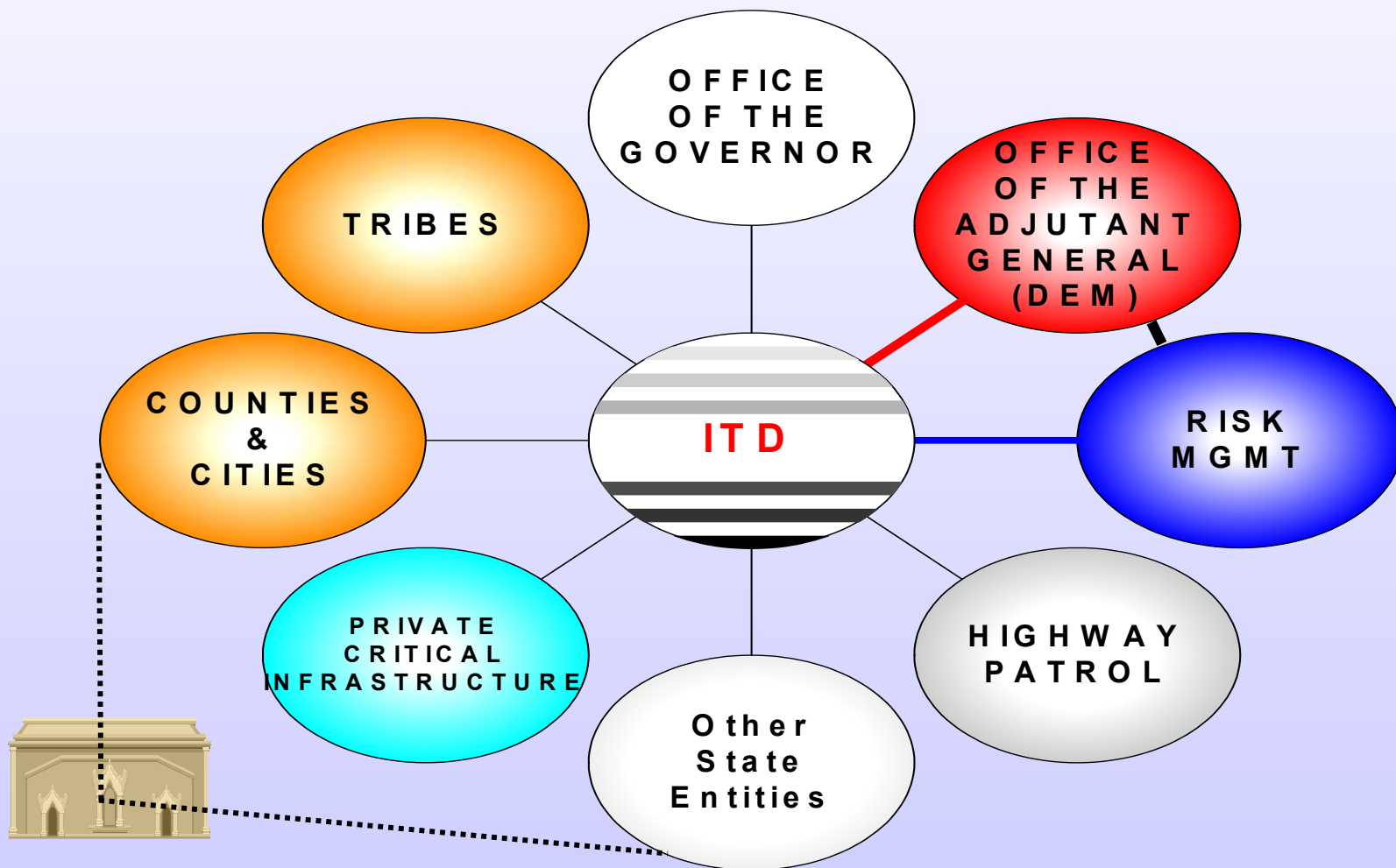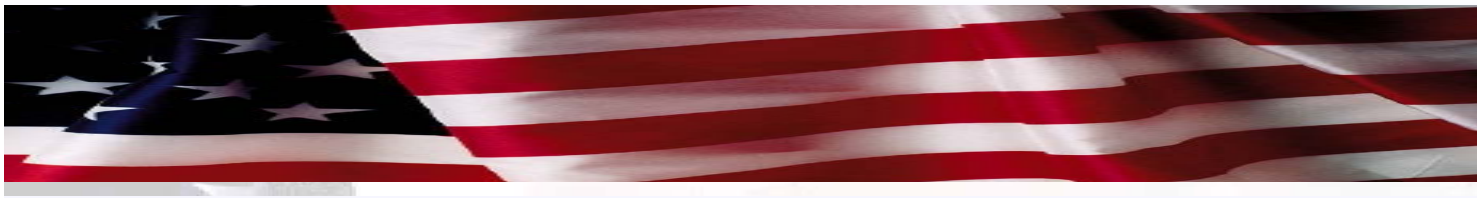
The Project Core

Value-Added: Potential Systems Integration

ND PLANNING SYSTEM

L D R P S

Business Impact Analysis

Incident Manager

HealthAlert Network

ND GIS Mapping

All plans define relationships between these components:

(Who, What, When, Where, How and Why)

People   **Responsibilities**   **Materials**
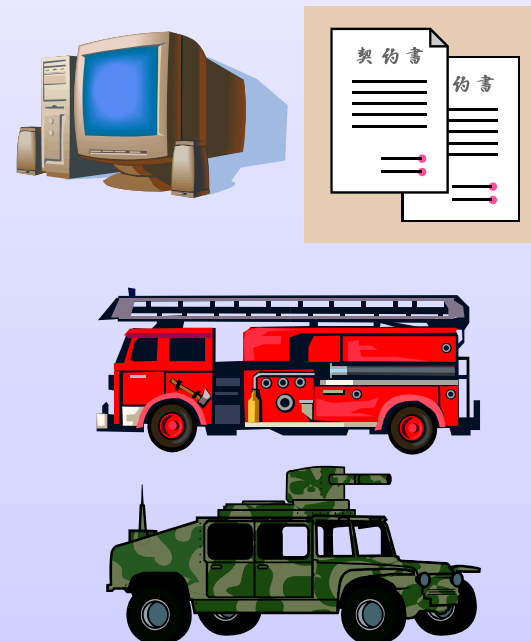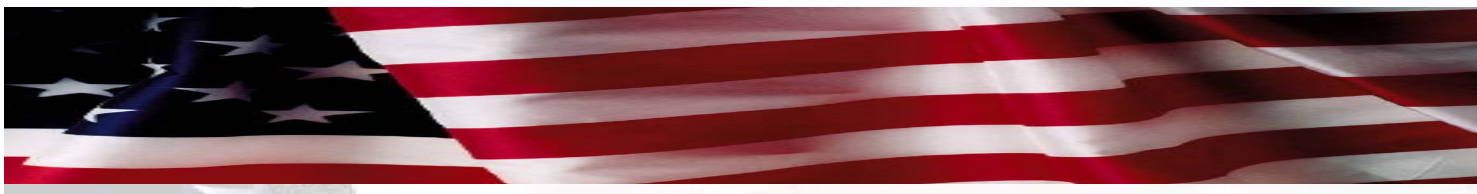
Relational Database

EMPLOYEE TABLE

Employee ID Number	Employee Name	Department
EM1001	Anderson, John	A
EM1002	Brockovitch, Erin	A
EM1003	Carson, Johnny	B
EM1004	DeNiro, Robert	Q
EM1005	Einstein, Albert	N
EM1006	Foxworthy, Jeff	X

Foreign Key – Matches a Primary Key in Another Table

DEPT. TABLE

Department	Description	Location
A	Design & Engineering	Modesto
B	Administration	Modesto
C	Construction - Electrical	Oakland
D	Construction - Structural	Monterrey
E	Human Resources	Palm Springs
F	Security	Las Vegas

Primary Key

(Makes the Record Unique)

Living Disaster Recovery Planning System (LDRPS)

Plan Data Summary

Responsibilities

Functions (0), Teams (0), Reporting Structure (0)

People

Employees (0), Call Lists (0), Vendors (0), Customers (0)

Materials

Software (0), Equipment (0), Supplies (0), Telecom (0), Assets (0), Vital Records (0)

Miscellaneous

Documents (0), Workstations (0), Locations (0)

LDRPS Screen

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
ORGANIZATION CHART
January 2, 2003
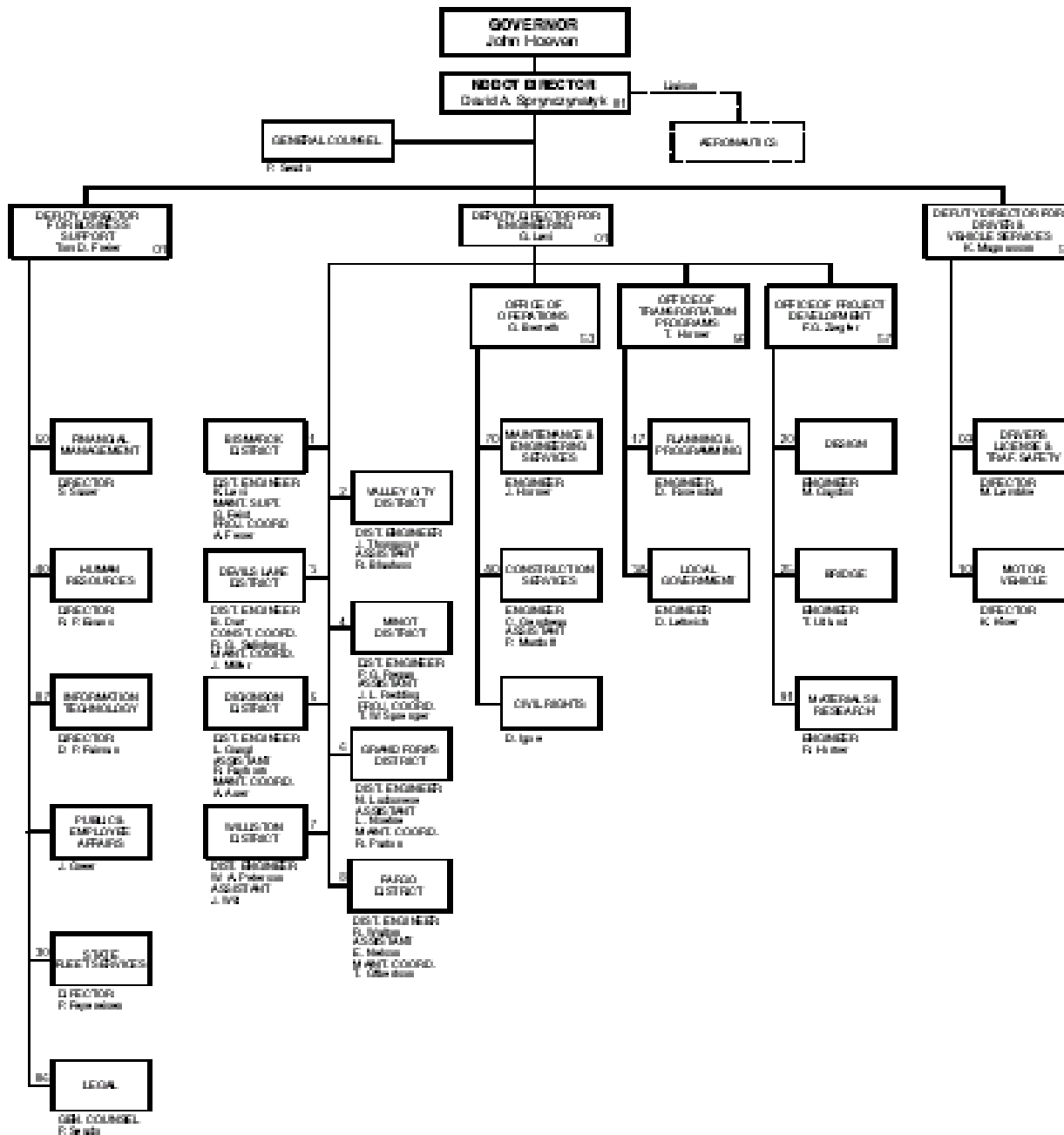
Plan

Rollup

| Edit Dictionaries | Build Plans | Manage Reports | Print Plans |

Plan Manager

| Process ID | Plan Dictionary | Description |

- ND State Plans
  - 80160 - Department of Transportation
    - Business Support
      - Financial Management Division
      - Human Resources Division
      - Information Technology Division
        - Information Systems Services
          - Drivers License & Motor Vehicles
          - Engineering
        - Telecommunications Radio
        - Telecommunications Network
      - Legal
      - Public & Employee Affairs
      - State Fleet Services
    - Driver & Vehicle Services
    - Engineering
      - Bismarck District
      - Devils Lake District
      - Office of Operations
        - Maintenance & Engineering Services
      - Valley City District
  - North Dakota County Plans
    - 01 - Adams County
      - Emergency Manager
        - LEOP
          - Coordination & Control Annex
        - Pre-disaster Mitigation Plan
      - Public Works
        - Snow Removal Plan
      - Sheriffs Department
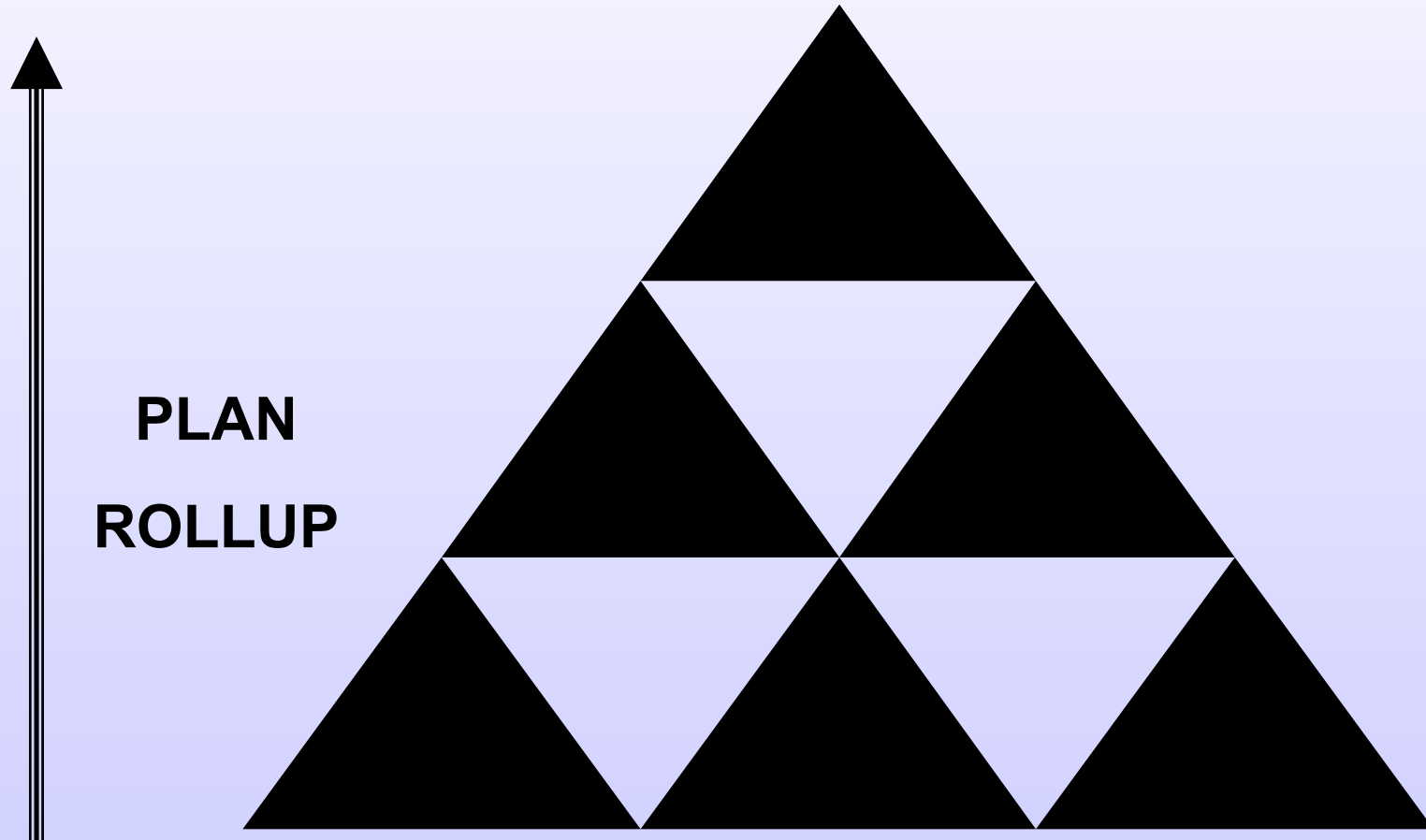   - Jail Policy Plan
  - North Dakota City Plans

PLAN

ROLLUP

ENTITY # - ENTITY NAME

1ST SUB-SECTION (e.g. DIVISION)

2ND SUB-SECTION (e.g. SECTION)

3rd SUB-SECTION

Functions / Employees / Vendors / Custo

Show Dictionaries | Clo

Build From the Bottom Up
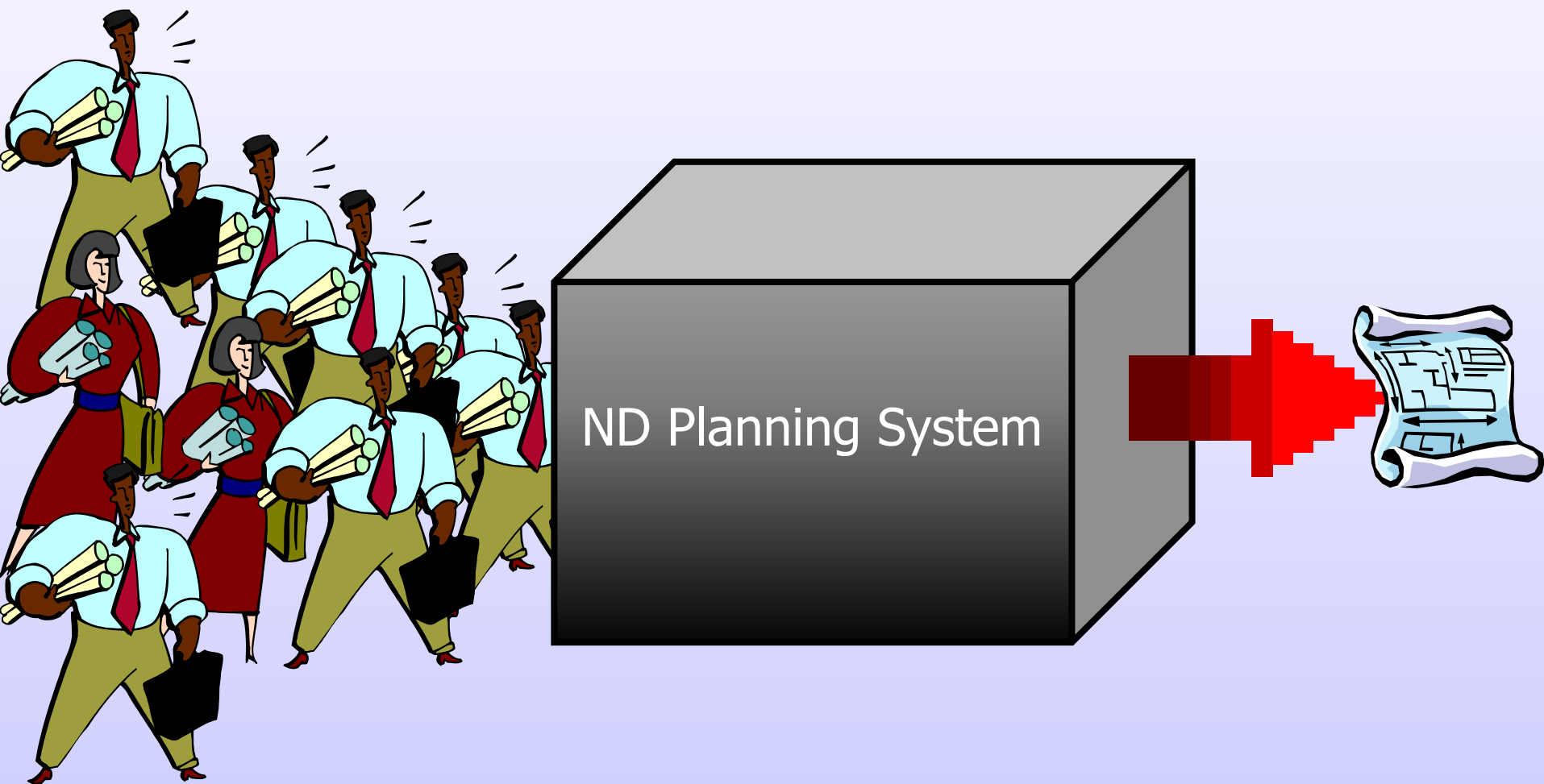
PLAN

ROLLUP

Plan Integration

ND Planning System

What Will Change?

NO CHANGE

Plan: A method for achieving an end; Implies mental formulation and sometimes graphical representation.

Plan Components: People, Responsibilities, Materials/Resources

Recording Method: Microsoft Products (Word), AutoCAD, Etc.

SUBSTANTIAL CHANGE

Strohl Systems Relational Database to integrate plans, plan components and recording methods into a networked, comprehensive system to "run" government.

Expected Benefits

- **Maximize collective efforts**

- **Empower state and local officials' [Homeland Security] efforts, leveraging existing [emergency preparedness and response] programs and capabilities to meet emerging [threats] needs**

- **Promote integrated and collective training, exercises, and evaluations**

- **Facilitate the adoption of best practices from other jurisdictions**

- **Enable government and private sector at all levels the ability to carry out its [Homeland Security] responsibilities**

- **Process matters—specific measures of performance in plans drive clarity, accountability and success.**

Leveraging A Proven System

In the following slides the structure of the State Emergency Operations plan (SEOP) will be presented. The SEOP has been developed and refined over decades into the form you will see in a moment.

Our hope is to adopt or adapt this structure into the LDRPS environment. We envision the creation of a standardized planning system that uses terms universally accepted and understood for the myriad of entities that will interact with the new planning system.

NORTH DAKOTA EMERGENCY OPERATIONS PLAN DIAGRAM

BASIC DOCUMENT

POLICY STATEMENT

WHO
WHAT
WHEN
WHERE

| AUTHORITIES |
| PURPOSE |
| ASSUMPTIONS |
| EXECUTION |
| CONCEPT OF THE OPERATION |

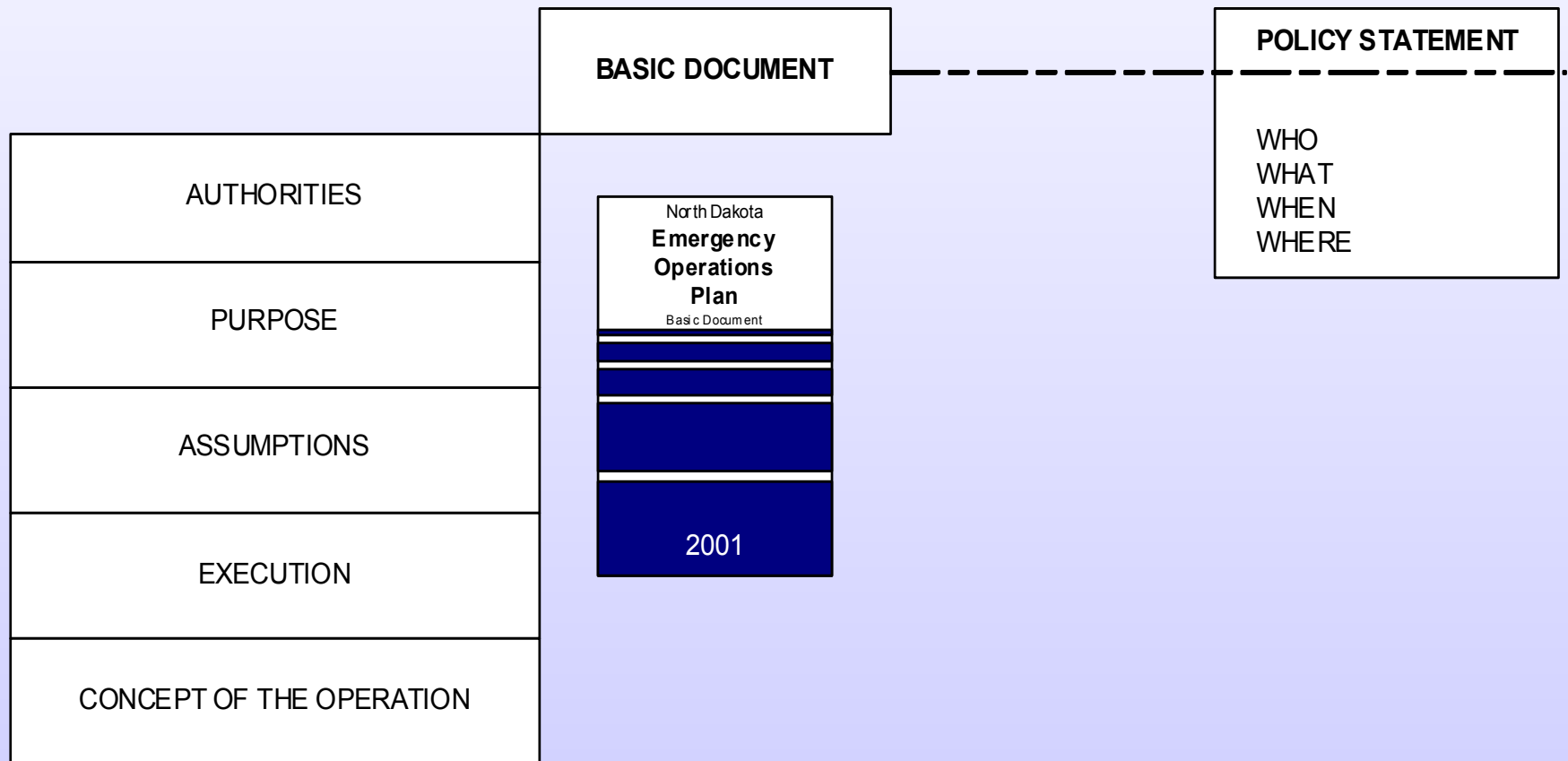North Dakota
Emergency Operations Plan
Basic Document

2001

GLOSSARY

OPERATIONAL FUNCTIONS

| ADMINISTRATION |
| COORDINATION & CONTROL |
| DAMAGE ASSESSMENT |
| COMMUNICATIONS |
| WARNING |
| INDIVIDUAL & FAMILY ASSISTANCE |
| PUBLIC SAFETY |
| PUBLIC WORKS & ENGINEERING |
| TRANSPORTATION |
| HEALTH & MEDICAL |

A N N E X E S

H O W

REFERENCES

- GENERAL PROCEDURES
- GUIDELINES
- POLICY STATEMENTS

ATTACHMENTS

| LISTS | Resources Contacts Distribution |
| DIAGRAMS |
| FORMS & SAMPLES |
| CHECKLISTS |

APPENDICES

HAZARD SPECIFIC

Floods
Winter Storms
Summer Storms
Hazardous Materials
Urban Fires
Rural Fires
Drought
Civil Disorder
Mass Casualty Accident
Dam Failure
Shortage of Critical Materials
National Emergency
Weapons of Mass Destruction

RESOURCE BOOKS

PROGRAM GUIDES
LISTS (Lengthy)
MAPS
DIRECTORIES (Federal, State, and Local)
MEMORANDA OF UNDERSTANDING
AGREEMENTS
OTHER STATE'S & FEDERAL PLANS

State Emergency Operations Plan - Basic Document

BASIC DOCUMENT

POLICY STATEMENT

WHO
WHAT
WHEN
WHERE

AUTHORITIES

PURPOSE

ASSUMPTIONS

EXECUTION

CONCEPT OF THE OPERATION

North Dakota
Emergency Operations Plan
Basic Document

2001

State Emergency Operations Plan - Annexes

ADMINISTRATION	**INDIVIDUAL & FAMILY ASSISTANCE**
COORDINATION & CONTROL	**PUBLIC SAFETY**
DAMAGE ASSESSMENT	**PUBLIC WORKS & ENGINEERING**
COMMUNICATIONS	**TRANSPORTATION**
WARNING	**HEALTH & MEDICAL**

COORDINATION & CONTROL ANNEX

A copy of the State COG Plan will reside here

REFERENCE "X" – ND Continuum of Government Plan

Leveraging A Proven System

Now that you have a basic understanding of the SEOP structure, note how it might translate into the Strohl System LDRPS environment.

The next two slides are drafts of the plan hierarchy currently being considered for implementation.

In the first slide, note that the Division of Emergency Management structure shows how a state agency with multiple plan types might be organized.

In the second slide a possible county and city structure is shown.

To simplify plan rollup (consolidating plans from all levels into 1 plan), a common structure with common terms must be used for all entities.

Plan Manager

| 🏠 | Edit Dictionaries | Build Plans | Manage Reports | Print Plans | ? |

Plan Manager

- North Dakota Plans 3
  - 1102 - Facility Management
    - Headquarters
      - Capitol Security Plan
      - Capitol Evacuation Plan
      - Tornado Plan
  - 504 - Highway Patrol
    - Dickinson District
      - Continuity of Operations Plan
      - Exercise and Training
      - Interstate Closure Plan
    - Williston District
      - Continuity of Operations Plan
      - DUI Plan
      - Exercise and Training
  - 512 - Division of Emergency Management
    - Headquarters
      - Continuity of Operations Plan
      - Emergency Alert System Plan
      - Hazard Mitigation
      - SEOP
        - Administration
        - Communications
        - Coordination and Control
        - Damage Assessment
        - Health and Medical
        - Individual and Family Assistance
        - Public Works and Engineering
        - Public Safety
        - Transportation
        - Warning
  - 801 - Department of Transportation

| Process ID | Plan Dictionary | Description |

ENTITY # - ENTITY NAME

DISTRICT / REGION / OFFICE

PLAN NAME

ANNEX NAMES

Functions / Employees / Vendors / Cust

Show Dictionaries   **Close**

File   Tree   Records   Help

Plan Manager

| 🏠 | **Edit Dictionaries** | **Build Plans** | **Manage Reports** | **Print Plans** | **?** |

Plan Manager

All Plans
- ⊞ North Dakota Plans
- ⊞ North Dakota Plans 2
- ⊞ North Dakota Plans 3
- ⊟ North Dakota County Plans
  - ⊟ 01 - Adams County
    - ⊟ Emergency Manager
      - ⊟ LEOP
        - Coordination & Control Annex
        - Pre-disaster Mitigation Plan
    - ⊟ Public Works
      - Snow Removal Plan
    - ⊟ Sheriffs Department
      - Jail Policy Plan
- ⊟ North Dakota City Plans
  - ⊟ 001-12345 - Hettinger
    - ⊟ City Auditor
      - Payroll Plan
    - ⊟ Public Works
      - Snow Removal Plan
- ⊞ State Emergency Ops Plan
- ⊞ Structure A
- ⊞ Structure B
- ⊞ Structure D
- ⊞ Structure E
- ⊞ Strohl Systems Implementation
- ⊞ Structure C

Process ID   Plan Dictionary   Description

ENTITY # – ENTITY NAME

DISTRICT / REGION / OFFICE

PLAN NAME

ANNEX NAMES

Functions Employees Vendors Cust

Show Dictionaries   **Close**

Statement of Scope

"In the event of a disaster, whether it be natural or manmade, it is imperative that North Dakota State Government be prepared to respond, recover, and resume services quickly and efficiently. Accordingly, I am directing that all State agencies and facilities develop a business continuity/disaster recovery plan to recover from a disaster that would impact its ability to function."

--Governor John Hoeven, July 2002

Consistent with the Governor's Directive and our Vision Statement, the State Continuum of Government (COG) team shall focus its initial efforts on the development and implementation of state agency continuity of operations plans through the use of the Strohl Systems' Living Disaster Recovery Planning System (LDRPS).

These plans, using common terminology, structure, and basic methodology, shall be used in the creation of the North Dakota State Continuum of Government (COG) Plan.

The State COG Plan will formalize response, preparedness, mitigation and recovery measures to ensure the executive, legislative, and judicial branches of state government can function under all circumstances.

Continuum of Government: *DEFINITION*

The preservation, maintenance, or reconstitution of civil government's ability to carryout the executive, legislative, and judicial processes under the threat or occurrence of any emergency condition that could disrupt such processes and services.

Continuum of Operations: *DEFINITION*

The ability to recover and provide service sufficient to meet the minimal needs of users of the system/agency. This ability to continue essential agency functions across a wide spectrum of emergencies will not necessarily limit COG functions.

ND DEM COG / COOP Structure

```
┌─────────────────┐              ┌─────────────────┐
│  STATE COG      │◄─ ─ ─ ─ ─ ─►│  COG MANAGER    │
│  TEAM           │              │                 │
└─────────────────┘              └─────────────────┘
```

- STATE COG TEAM ◄ ─ · ─ · ─ ► COG MANAGER

COG MANAGER branches to **COOP MANAGER** and to the red "COG ESSENTIAL" box (OPERATIONS OFFICER) and **PUBLIC INFORMATION OFFICER**.

COOP MANAGER connects to:
- COMMUNICATIONS & DATA LIAISON ◄► ADMIN & FINANCE LIAISON
- STAFF WELFARE LIAISON ◄► TRANSPORTATION LIAISON
- CRITICAL RESOURCE LIAISON ◄► SECURITY LIAISON

COG ESSENTIAL (red box):
- OPERATIONS OFFICER
- ASSISTANT OPERATIONS OFFICER
- REACT OFFICER

PUBLIC INFORMATION OFFICER